

APPENDIX 2 – Total Maximum Daily Load (TMDL) Requirements

Additional Permit requirements are based on applicable TMDLs in accordance with Special Condition

S7 – Compliance with Total Maximum Daily Load Requirements.

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Name of TMDL	WRIA 1 - Nooksack River Watershed Bacteria TMDL
Document(s) for TMDL	<p><i>Nooksack River Watershed Bacteria Total Maximum Daily Load</i>, June 2000, Ecology Publication No. 00-10-036. https://fortress.wa.gov/ecy/publications/publications/0010036.pdf</p> <p><i>Nooksack River Watershed Bacteria Total Maximum Daily Load Detailed Implementation Plan</i>, January 2002, Ecology Publication No. 01-10-060. https://fortress.wa.gov/ecy/publications/publications/0110060.pdf</p>
Location of Original 303(d) Listings	WA-01-1010, WA-01-1012, WA-01-1014, WA-01-1015, WA-01-1016, WA-01-1110, WA-01-1111, WA-01-1115, WA-01-1116, WA-01-1117, WA-01-1118, WA-01-1119, WA-01-1120, WA-01-1125, AR42TO, BX84LO, UZ70KA, LLPL
Area Where TMDL Requirements Apply	TMDL coverage includes areas served by an MS4 draining to the Nooksack River and its tributaries, Fishtrap Creek, Bertrand Creek, Double Ditch drain, Duffner Ditch, Bender road ditch, between Nugents Corner and Marine Drive.
Parameter(s)	Fecal Coliform
EPA Approval Date	August 8, 2000
MS4 Permittee	<p>Phase II Permit: City of Ferndale WAR04-5552</p> <p>Phase II Permit: City of Lynden WAR04-5719</p>

CITY OF FERNDALE

Action Required

Continue bacteria sampling under Ecology-approved, *Stormwater Quality Monitoring for Fecal Coliform Bacteria QAPP* dated 6/19/2009.

- Once the City of Ferndale reduces fecal coliform bacteria below state water quality standards in the current outfall sampling area, the City of Ferndale should designate a new representative area for continued fecal coliform sampling at MS4 outfalls.
- City of Ferndale shall submit an updated fecal coliform Quality Assurance Project Plan (QAPP) to Ecology for review and approval by December 1, 2019. Monitoring shall be ongoing for the permit term.
- With each annual report, the City of Ferndale shall submit monitoring results from representative stormwater outfalls.
- With each annual report, the City of Ferndale shall submit an up to date Stormwater Capital Improvement plan to address existing deficiencies in the stormwater treatment and conveyance system.

CITY OF LYNDEN

Action Required

The City of Lynden shall designate a high priority area discharging to its MS4 system for fecal coliform sampling at a representative outfall location, and submit a Stormwater Capital Improvement Plan with each annual report.

- City of Lynden shall designate a high priority sampling location from an MS4 outfall.
- City of Lynden shall submit a fecal coliform Quality Assurance Project Plan (QAPP) to Ecology for review and approval by December 1, 2019. Monitoring shall be ongoing for the permit term.
- With each annual report, City of Lynden shall submit the monitoring results and an up to date Stormwater Capital Improvement Plan to address existing deficiencies in the stormwater treatment and conveyance system.

Name of TMDL	WRIA 1 - Lake Whatcom Watershed Total Phosphorus and Bacteria Total Maximum Daily Loads
EPA Approved Document(s) for TMDL	<p><i>Lake Whatcom Watershed Total Phosphorus and Bacteria Total Maximum Daily Loads. Volume 1 (Water Quality Study Findings), November 2008, Ecology Publication No. 08-03-024</i> https://fortress.wa.gov/ecy/publications/summarypages/0803024.html</p> <p><i>Volume 2 (Water Quality Improvement Report and Implementation Strategy) November 2014 revised February 2016, Ecology Publication No. 13-10-012</i> https://fortress.wa.gov/ecy/publications/summarypages/1310012.html</p>
Location of Original 303(d) Listings	<p>Whatcom Lake 5846 and 8621 (WA-01-9170) Austin Creek 9719 Anderson Creek 39036 Brannian Creek 45603 Smith Creek 39145 Olsen Creek 45589 (WA-01-3150) Carpenter Creek 45604 Euclid Creek 45618 Silver Beach Creek 45633 (WA-01-3120) Mill Wheel Creek 45652 Euclid Creek 48035</p>
Area Where TMDL Requirements Apply	These requirements apply to areas served by MS4s within the City of Bellingham and Whatcom County
Parameter(s)	Total Phosphorus, Fecal Coliform Bacteria
EPA Approval Date	April 7, 2016
MS4 Permittee	<p>City of Bellingham WAR04-5550 Whatcom County WAR04-5557</p>

CITY OF BELLINGHAM

Action Required

1) Public Education, Outreach, and Engagement

- a. Develop repeatable survey to measure watershed residents' beliefs, behaviors and attitudes over time related to Lake Whatcom water quality problems and solutions to inform the development of Lake Whatcom Watershed outreach programs.

- b. With each annual report, report on progress developing repeatable survey.
- c. No later than March 31, 2022, attach results of survey with annual report.
- d. Provide to Ecology the informational packet distributed to all watershed residents, and track how many new watershed property owners received copies.
- e. No later than March 31, 2020, provide to Ecology the Lake Whatcom Cooperative Management Program Five-Year Work Plan, Program Area 9 updates.

2) Stormwater Management

- a. With each annual report, update and prioritize a list of new treatment and flow control Capital Improvement Projects. Each Permittee shall track all relevant steps of the project(s) including but not limited to:
 - i. Land acquisition
 - ii. Design
 - iii. Construction
 - iv. Estimated Cost
 - v. Drainage Area
 - vi. Treated Acres
 - vii. Funding Status and Sources
- b. No later than March 31, 2024, provide a list of retrofit opportunities with applicable timelines to incorporate new technology and new strategies into existing stormwater facilities.
- c. With each annual report, the City shall evaluate and track phosphorus reductions in the following categories:
 - i. Phosphorus treatment and flow control capital projects;
 - ii. Homeowner improvements through the Homeowner Incentive Program (HIP)
 - iii. Land use regulations; and
 - iv. Operations and maintenance activities.

Reductions shall be expressed as reduction in Effective Developed Acres, and may also be expressed as mass per unit time. With each annual report, the City shall provide an estimate of the mass of total phosphorus removed from roads with enhanced street sweeping and estimate the equivalent reduced effective developed acres.

3) Operational Best Practices and Good Housekeeping

No later than March 31, 2024, submit the watershed-specific appendix to the City's operational plan for managing public areas such as park, trails, rights-of-way and open spaces.

4) Water Quality Monitoring and Effectiveness Evaluation

In August 2018, the City (in coordination with the County) submitted a list of studies designed to narrow uncertainty in the lake response and watershed loading models. Items a through c are based on these studies.

- a. By March 31, 2020, submit Quality Assurance Project Plan (QAPP), jointly with Lake Whatcom Cooperative Management Program, for approval by Ecology for updates to models used to assess pollutant loading and lake response.
- b. In annual reports starting in March 2020, the City shall track and report the status of the timelines in the QAPPs approved by Ecology.
- c. By March 31, 2021, annual report the City shall provide an evaluation of the effectiveness of built stormwater treatment and flow control facilities and an assessment of overall performance in reducing phosphorus and fecal coliform.

5) Administration

- a. By December 31, 2023, the City, in coordination with the County, shall submit Lake Whatcom Implementation tasks for 2024-2029.
- b. With the March 2024 annual report, the City shall submit new loading capacity based on new models.

WHATCOM COUNTY

Action Required

1) Public Education, Outreach, and Engagement

- a. With the March 31, 2020 annual report, provide Lake Whatcom Cooperative Management Program Five-Year Work Plan, Program Area 9 updates.
- b. With each annual report, Whatcom County shall provide an evaluation of annual workshops on private stormwater facility maintenance (for residential and commercial developments), and provide/coordinate facility inspections and technical reports with maintenance guidelines and recommendations to the development. The evaluation shall include which target audiences, including residents, homeowners/condominium associations, and property managers/owners, the workshops reached, behavior changes assessed, and any adaptive management needed for workshops to more effectively reach the target audiences, and assess subject matter behavior change.
- c. The County shall conduct a hazardous materials pick-up event before July 31, 2024. In the following annual report the County shall report the pounds of hazardous materials collected from all watershed participants.

2) Stormwater Management

- a. With each annual report, the County shall provide a prioritized list of planned new treatment and flow control Capital Improvement Projects. The submittal shall track all relevant steps of the project(s) including but not limited to:
 - i. Land acquisition
 - ii. Design

- iii. Construction
 - iv. Estimated Cost
 - v. Drainage Area
 - vi. Treated Acres
 - vii. Funding Status and Sources
- b. No later than March 31, 2024, the County shall provide list of retrofit opportunities with applicable timelines to incorporate new technology and new strategies into existing County owned stormwater facilities.
- c. With each annual report, the County shall provide a report on phosphorus reductions completed in the following categories:
- i. Functional phosphorus treatment and flow control capital projects;
 - ii. Homeowner improvements through the Homeowner Incentive Program (HIP)
 - iii. Land use regulations; and
 - iv. Operations and maintenance activities.

Reductions shall be expressed as reduction in Effective Developed Acres, and may be expressed as mass per unit time.

3) Operational Best Practices and Good Housekeeping

- a. With each annual report, the County shall demonstrate that publicly owned catch basins are being inspected every 18 months.

4) Water Quality Monitoring and Effectiveness Evaluation

- a. With the March 31, 2020 annual report, submit a Quality Assurance Project Plan (QAPP), jointly with Lake Whatcom Cooperative Management Program, for approval by Ecology for updates to models used to assess pollutant loading and lake response.
- b. In annual reports starting in March 2020, the County shall track and report the status of the timelines in the QAPPs approved by Ecology.
- c. By March 31, 2021, the County shall provide an evaluation of the effectiveness of built stormwater treatment and flow control facilities, and an assessment of overall performance in reducing phosphorus and fecal coliform.

5) Administration

- a. By December 31, 2023, the County, in coordination with the City, shall submit Lake Whatcom Implementation Tasks for 2024-2029.
- b. With the March 31, 2024 annual report, the County shall submit new loading capacity based on new models.

Name of TMDL	WRIA 5 - Stillaguamish River
EPA Approved Document(s) for TMDL	<p><i>Stillaguamish River Watershed Fecal Coliform, Dissolved Oxygen, pH, Arsenic, and Mercury Total Maximum Daily Load (Water Cleanup Plan) - Submittal Report</i>, May 2005, Ecology Publication No. 05-10-044. https://fortress.wa.gov/ecy/publications/publications/0510044.pdf</p> <p><i>Stillaguamish River Watershed Fecal Coliform, Dissolved Oxygen, pH, Arsenic, and Mercury Total Maximum Daily Load (Water Cleanup Plan) - Water Quality Implementation Plan</i>, June 2007, Ecology Publication No. 07-10-033. https://fortress.wa.gov/ecy/publications/documents/0710033.pdf</p>
Location of Original 303(d) Listings	QJ28UC, HD76OJ, JU33JU, GH05SX, IJ55EP, VJ74AO, 390KRD, OT80TY, QE93BW, ZO73WL, WO38NV, SN06ZT, LU17DC
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittees' municipal stormwater permit and draining to fresh or marine waters within Water Resource Inventory Area (WRIA) 5
Parameter	Fecal Coliform, Dissolved Oxygen
EPA Approval Date	June 21, 2005
MS4 Permittee	Phase I Permit: Snohomish County Phase II Permit: Arlington

SNOHOMISH COUNTY/CITY OF ARLINGTON

Action Required

Business Inspections: Each Permittee shall inspect commercial animal handling areas and commercial composting facilities to ensure implementation of source control BMPs for bacteria. *Commercial animal handling areas* are associated with Standard Industrial Code (SIC) 074 and 075 and include veterinary and pet care/boarding services, animal slaughtering, and support activities for animal production. Facilities where the degradation and transformation of organic solid waste takes place under controlled conditions designed to promote aerobic decomposition are considered *composting facilities* (definition in accordance with Chapter 173-350 WAC). Permittees shall continue to implement an ongoing inspection program to re-inspect facilities with bacteria source control problems a minimum of every three years.

Public Education and Outreach: Each Permittee shall conduct public education and outreach activities to increase awareness of bacterial pollution problems and promote proper pet waste management behavior.

Operations & Maintenance: Each Permittee shall install and maintain animal waste collection and/or education stations at municipal parks and other Permittee owned and operated lands reasonably

expected to have substantial domestic animal (dog and horse) use and the potential for pollution of stormwater.

IDDE: Permittees conducting IDDE-related field screening under S5.C.9 of the Phase I Permit or S5.C.5 of the Western Washington Phase II Permit, shall screen for bacteria sources in any screened MS4 sub-basins which discharge to surface waters in the TMDL area.

Snohomish County shall screen previously unscreened rural MS4 basins in the TMDL area by the expiration date of the Permit unless the option to combine this requirement with the surface water monitoring requirement is selected below. Permittees shall implement the schedules and activities identified in S5.C.9 of the Phase I Permit or S5.C.5 of the Western Washington Phase II Permit, in response to any illicit discharges found.

Surface Water Monitoring: Each Permittee shall conduct surface water monitoring for characterization and long term trends evaluation of fecal coliform in accordance with the QAPP approved under the 2013 Permit. If changes to surface water monitoring locations or other updates are needed, each Permittee shall submit a draft revised QAPP to Ecology for review and approval. At a minimum, the monitoring program shall:

- Collect 12 samples taken in at least one location per calendar year. For the reporting year of 2019, samples taken any time between January 01, 2019 through December 31st, 2019 may be included.
- Submit available data to the Environmental Information Management (EIM) database by May 31 of each year.
- Provide a data summaries and narrative evaluation of the data in each annual report's TMDL summary.
- Be documented in a QAPP which follows *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies*, July 2004, Ecology Publication No. 04-03-030.

Permittees shall follow Ecology-approved QAPPs unless changes are approved by Ecology. Permittees subject to multiple bacteria TMDL monitoring requirements may conduct an integrated monitoring program in accordance with an Ecology-approved QAPP.

Name of TMDL	WRIA 7 - Snohomish River Tributaries
EPA Approved Document(s) for TMDL	<p><i>Water Quality Assessment of Tributaries to the Snohomish River and Nonpoint Source Pollution TMDL</i>, September 1997, Ecology Publication No. 97-334. https://fortress.wa.gov/ecy/publications/SummaryPages/97334.html</p> <p><i>Snohomish River Tributaries Fecal Coliform Total Maximum Daily Load Submittal Report</i>, June 2001, Ecology publication No. 00-10-087. https://fortress.wa.gov/ecy/publications/summarypages/0010087.html</p> <p><i>Lower Snohomish River Tributaries Fecal Coliform Bacterial Total Maximum Daily Load: Detailed Implementation Plan</i>, June 2003, Ecology Publication No. 03-10-031. https://fortress.wa.gov/ecy/publications/documents/0310031.pdf</p>
Location of Original 303(d) Listings	WA-07-1012, WA-07-015, WA-07-1052, WA-07-1163WA-07-1163, WA-07-1030 and WA-07-040
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittees' municipal stormwater permit and draining to the WASWIS segment number, and all upstream tributaries within the jurisdiction of the Permittee and within the geographic area covered by this Permit contributing to waterbodies: Allen Creek, YT94RF: Quilceda Creek, TH58TS: French Creek, XZ24XU: Woods Creek, FZ74HO: Pilchuck River, NF79WA: Marshland Watershed, XW79FQ.
Parameter	Fecal Coliform
EPA Approval Date	August 9, 2001
MS4 Permittee	<p>Phase I Permit: Snohomish County</p> <p>Phase II Permit: Granite Falls, Lake Stevens, Monroe, Snohomish, Marysville, Arlington, Everett</p>

SNOHOMISH RIVER TRIBUTARIES PERMITTEES

Action Required

Business Inspections: Each Permittee shall inspect commercial animal handling areas and commercial composting facilities to ensure implementation of source control BMPs for bacteria. *Commercial animal handling areas* are associated with Standard Industrial Code (SIC) 074 and 075 and include veterinary and pet care/boarding services, animal slaughtering, and support activities for animal production. Facilities where the degradation and transformation of organic solid waste takes place under controlled conditions designed to promote aerobic decomposition are considered *composting facilities* (definition in accordance

with Chapter 173-350 WAC). Permittees shall continue to implement an ongoing inspection program to re-inspect facilities with bacteria source control problems a minimum of every three years.

Targeted Source Identification & Elimination: By January 1, 2021, each Permittee shall review the fecal coliform data collected per approved QAPPs under the 2013 Permit, and may include any other relevant and available bacteria data. The purpose of this review is to identify a minimum of one new high priority area (such as a tributary or a stream segment) that will be the focus of source identification and elimination efforts during calendar years 2021 through 2023. Each Permittee shall prepare written documentation of this review and the identified high priority area; documentation shall be submitted with the Annual Report for 2020. Permittees shall begin to implement source identification and elimination efforts in the MS4 sub-basins discharging to the identified high priority area no later than May 1, 2021. For Permittees with more than one TMDL containing this Targeted Source Identification and Elimination requirement, those Permittees shall begin to implement Source Identification and Elimination efforts in at least one of the sub-basins discharging to the identified high priority area no later than May 01, 2021. Permittees have the flexibility to stagger the implementation of the remaining sub-basin IDDE efforts, provided all have been completed by the end of the calendar year in 2023.

Permittees are encouraged to address potential bacteria pollution sources not associated with the MS4. Stormwater quality sampling for bacteria sources is required as part of this focused source identification and elimination effort. For the purposes of Targeted Source Identification and Elimination efforts, stormwater quality sampling is defined as obtaining grab samples of stormwater discharging to or from the MS4 or receiving waters during a storm event. Permittees shall implement the schedules and activities identified in S5.C.9 of the Phase I Permit or S5.C.5 of the Western Washington Phase II Permit, in response to any illicit discharges found. Each annual report's TMDL summary shall include qualitative and quantitative information about the source identification and elimination activities, including procedures followed and sampling results, implemented in the selected high priority area(s).

Surface Water Monitoring: Each Permittee shall conduct surface water monitoring for characterization and long term trends evaluation of fecal coliform in accordance with the QAPP approved under the 2013 Permit. If changes to surface water monitoring locations or other updates are needed, each Permittee shall submit a draft revised QAPP to Ecology for review and approval. At a minimum, the monitoring program shall:

- Collect 12 samples taken in at least one location per calendar year. For the reporting year of 2019, samples taken any time between January 01, 2019 through December 31st, 2019 may be included.
- Submit available data to the Environmental Information Management (EIM) database by May 31 of each year.
- Provide data summaries and narrative evaluation of the data in each annual report's TMDL summary.
- Be documented in a QAPP which follows *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies*, July 2004, Ecology Publication No. 04-03-030.

Permittees shall follow Ecology-approved QAPPs unless changes are approved by Ecology. Permittees subject to multiple bacteria TMDL monitoring requirements may conduct an integrated monitoring program in accordance with an Ecology-approved QAPP.

Name of TMDL	WRIA 8 - North Creek
EPA Approved Document(s) for TMDL	<p><i>North Creek Watershed: Total Maximum Daily Load Evaluation for Fecal Coliform Bacteria</i>, June 2001, Ecology Publication No. 01-03-020. https://fortress.wa.gov/ecy/publications/summarypages/0103020.html</p> <p><i>North Creek Fecal Coliform Total Maximum Daily Load Submittal Report</i>, June 2002, Ecology publication No. 02-10-020. https://fortress.wa.gov/ecy/publications/summarypages/0210020.html</p> <p><i>North Creek Fecal Coliform Bacteria Total Maximum Daily Load: Detailed Implementation Plan</i>, October 2003, Ecology Publication No. 03-10-047. https://fortress.wa.gov/ecy/publications/SummaryPages/0310047.html</p>
Location of Original 303(d) Listings	WA-08-1065
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittees' municipal stormwater permit and draining to the portion of the WASWIS segment SM74QQ starting at the confluence with the Sammamish River and including all upstream tributaries contributing to the North Creek segment of WASWIS SM74QQ.
Parameter	Fecal Coliform
EPA Approval Date	August 2, 2002
MS4 Permittee	<p>Phase I Permit: Snohomish County</p> <p>Phase II Permit: Everett, Bothell, Mill Creek</p>

SNOHOMISH COUNTY AND ASSOCIATED CITIES

Action Required

Business Inspections: Each Permittee shall inspect commercial animal handling areas and commercial composting facilities to ensure implementation of source control BMPs for bacteria. *Commercial animal handling areas* are associated with Standard Industrial Code (SIC) 074 and 075 and include veterinary and pet care/boarding services, animal slaughtering, and support activities for animal production. Facilities where the degradation and transformation of organic solid waste takes place under controlled conditions designed to promote aerobic decomposition are considered *composting facilities* (definition in accordance with Chapter 173-350 WAC). Permittees shall continue to implement an ongoing inspection program to re-inspect facilities with bacteria source control problems a minimum of every three years.

Targeted Source Identification & Elimination: By January 1, 2021, each Permittee shall review the fecal coliform data collected per approved QAPPs under the 2013 Permit, and may include any other relevant and available bacteria data. The purpose of this review is to identify a minimum of one new high priority area (such as a tributary or a stream segment) that will be the focus of source identification and elimination efforts during calendar years 2021 through 2023. Each Permittee shall prepare written documentation of this review and the identified high priority area; documentation shall be submitted with the Annual Report for 2020. Permittees shall begin to implement source identification and elimination efforts in the MS4 sub-basins discharging to the identified high priority area no later than May 1, 2021. For Permittees with more than one TMDL containing this Targeted Source Identification and Elimination requirement, those Permittees shall begin to implement Source Identification and Elimination efforts in at least one of the sub-basins discharging to the identified high priority area no later than May 01, 2021. Permittees have the flexibility to stagger the implementation of the remaining sub-basin IDDE efforts, provided all have been completed by the end of the calendar year in 2023.

Permittees are encouraged to address potential bacteria pollution sources not associated with the MS4. Stormwater quality sampling for bacteria sources is required as part of this focused source identification and elimination effort. For the purposes of Targeted Source Identification and Elimination efforts, stormwater quality sampling is defined as obtaining grab samples of stormwater discharging to or from the MS4 or receiving waters during a storm event. Permittees shall implement the schedules and activities identified in S5.C.9 of the Phase I Permit or S5.C.5 of the Western Washington Phase II Permit, in response to any illicit discharges found. Each annual report's TMDL summary shall include qualitative and quantitative information about the source identification and elimination activities, including procedures followed and sampling results, implemented in the selected high priority area(s).

Surface Water Monitoring: Each Permittee shall conduct surface water monitoring for characterization and long term trends evaluation of fecal coliform in accordance with the QAPP approved under the 2013 Permit. If changes to surface water monitoring locations or other updates are needed, each Permittee shall submit a draft revised QAPP to Ecology for review and approval. At a minimum, the monitoring program shall:

- Collect 12 samples taken in at least one location per calendar year. For the reporting year of 2019, samples taken any time between January 01, 2019 through December 31st, 2019 may be included.
- Submit available data to the Environmental Information Management (EIM) database by May 31 of each year.
- Provide data summaries and narrative evaluation of the data in each annual report's TMDL summary.
- Be documented in a QAPP which follows *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies*, July 2004, Ecology Publication No. 04-03-030.

Permittees shall follow Ecology-approved QAPPs unless changes are approved by Ecology. Permittees subject to multiple bacteria TMDL monitoring requirements may conduct an integrated monitoring program in accordance with an Ecology-approved QAPP.

Name of TMDL	WRIA 8 - Swamp Creek
EPA Approved Document(s) for TMDL	Swamp Creek Fecal Coliform Bacteria Total Maximum Daily Load: Water Quality Improvement Report and Implementation Plan, June 2006, Ecology Publication No. 06-10-021. https://fortress.wa.gov/ecy/publications/publications/0610021.pdf
Location of Original 303(d) Listings	WA-08-1060
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittees municipal stormwater permit and draining to the portion of the WASWIS segment SM74QQ starting at the confluence with the Sammamish River and including all upstream tributaries contributing to the Swamp Creek segment of WASWIS GJ57UL.
Parameter	Fecal Coliform
EPA Approval Date	August 16, 2006
MS4 Permittee	Phase I Permit: Snohomish County Phase II Permit: Everett, Bothell, Lynnwood, Brier, Mountlake Terrace, Kenmore

SNOHOMISH COUNTY AND ASSOCIATED CITIES

Action Required

Business Inspections: Each Permittee shall inspect commercial animal handling areas and commercial composting facilities to ensure implementation of source control BMPs for bacteria. *Commercial animal handling areas* are associated with Standard Industrial Code (SIC) 074 and 075 and include veterinary and pet care/boarding services, animal slaughtering, and support activities for animal production. Facilities where the degradation and transformation of organic solid waste takes place under controlled conditions designed to promote aerobic decomposition are considered *composting facilities* (definition in accordance with Chapter 173-350 WAC). Permittees shall continue to implement an ongoing inspection program to re-inspect facilities with bacteria source control problems a minimum of every three years.

Public Education and Outreach: Each Permittee shall conduct public education and outreach activities to increase awareness of bacterial pollution problems and promote proper pet waste management behavior.

Operations & Maintenance: Each Permittee shall install and maintain animal waste collection and/or education stations at municipal parks and other Permittee owned and operated lands reasonably expected to have substantial domestic animal (dog and horse) use and the potential for pollution of stormwater.

IDDE: Permittees conducting IDDE-related field screening under S5.C.9 of the Phase I Permit or S5.C.5 of the Western Washington Phase II Permit, shall screen for bacteria sources in any screened MS4 sub-basins which discharge to surface waters in the TMDL area.

Targeted Source Identification & Elimination: By January 1, 2021, each Permittee shall review the fecal coliform data collected per approved QAPPs under the 2013 Permit, and may include any other relevant and available bacteria data. The purpose of this review is to identify a minimum of one new high priority area (such as a tributary or a stream segment) that will be the focus of source identification and elimination efforts during calendar years 2021 through 2023. Each Permittee shall prepare written documentation of this review and the identified high priority area; documentation shall be submitted with the Annual Report for 2020. Permittees shall begin to implement source identification and elimination efforts in the MS4 sub-basins discharging to the identified high priority area no later than May 1, 2021. For Permittees with more than one TMDL containing this Targeted Source Identification and Elimination requirement, those Permittees shall begin to implement Source Identification and Elimination efforts in at least one of the sub-basins discharging to the identified high priority area no later than May 01, 2021. Permittees have the flexibility to stagger the implementation of the remaining sub-basin IDDE efforts, provided all have been completed by the end of the calendar year in 2023.

Permittees are encouraged to address potential bacteria pollution sources not associated with the MS4. Stormwater quality sampling for bacteria sources is required as part of this focused source identification and elimination effort. For the purposes of Targeted Source Identification and Elimination efforts, stormwater quality sampling is defined as obtaining grab samples of stormwater discharging to or from the MS4 or receiving waters during a storm event. Permittees shall implement the schedules and activities identified in S5.C.9 of the Phase I Permit or S5.C.5 of the Western Washington Phase II Permit, in response to any illicit discharges found. Each annual report's TMDL summary shall include qualitative and quantitative information about the source identification and elimination activities, including procedures followed and sampling results, implemented in the selected high priority area(s).

Surface Water Monitoring: Each Permittee shall conduct surface water monitoring for characterization and long term trends evaluation of fecal coliform in accordance with the QAPP approved under the 2013 Permit. If changes to surface water monitoring locations or other updates are needed, each Permittee shall submit a draft revised QAPP to Ecology for review and approval. At a minimum, the monitoring program shall:

- Collect 12 samples taken in at least one location per calendar year. For the reporting year of 2019, samples taken any time between January 01, 2019 through December 31, 2019, may be included.
- Submit available data to the Environmental Information Management (EIM) database by May 31 of each year.
- Provide data summaries and narrative evaluation of the data in each annual report's TMDL summary.
- Be documented in a QAPP which follows *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies*, July 2004, Ecology Publication No. 04-03-030.

Permittees shall follow Ecology-approved QAPPs unless changes are approved by Ecology. Permittees subject to multiple bacteria TMDL monitoring requirements may conduct an integrated monitoring program in accordance with an Ecology-approved QAPP.

Name of TMDL	WRIA 8 - Bear-Evans Watershed
Document(s) for TMDL	<p><i>Bear-Evans Watershed Fecal Coliform Bacteria Total Maximum Daily Load, Water Quality Improvement Report</i>, June 2008, Ecology Publication No. 08-10-026. https://fortress.wa.gov/ecy/publications/documents/0810026.pdf</p> <p><i>Bear-Evans Watershed Temperature, Dissolved Oxygen and Fecal Coliform Bacteria Total Maximum Daily Load, Water Quality Implementation Plan</i>, March 2011, Ecology Publication No. 11-10-024. https://fortress.wa.gov/ecy/publications/documents/1110024.pdf</p>
Location of Original 303(d) Listings	<p>Bear Creek (EW54VY, BA64JJ, WR69YU))</p> <p>Cottage Lake Creek (NO74J5)</p> <p>Unnamed Tributary to Bear Creek (EU47RU)</p> <p>Evans Creek (MI67EG)</p>
Area Where TMDL Requirements Apply	Bear Creek and Evans Creek watersheds (includes Cottage Lake watershed)
Parameter	Fecal Coliform
EPA Approval Date	August 11, 2008
MS4 Permittee	<p>Phase I: King County</p> <p>Phase II: No actions identified for Phase II Permittees</p>

KING COUNTY

Action Required

- Install and maintain animal waste education and/or collection stations at municipal parks and other Permittee owned and operated lands reasonably expected to have substantial domestic animal (dog and horse) use and the potential for pollution of stormwater.
- Designate previously unscreened areas discharging via the MS4 to the TMDL area as high priority areas for illicit discharge detection and elimination. Complete IDDE field screening for bacteria sources in these areas, including rural MS4 sub-basins, by January 1, 2022, and implement the schedules and activities identified in S5.C.9 of the Phase I Permit for response to any illicit discharges found.

Name of TMDL	WRIA 8 - Cottage Lake
EPA Approved Document(s) for TMDL	<p><i>Cottage Lake, Total Phosphorus, Total Maximum Daily Load Analysis, Submittal Report</i>, June 2004, Ecology Publication No. 03-10-085. https://fortress.wa.gov/ecy/publications/documents/0310085.pdf</p> <p><i>Cottage Lake, Total Phosphorus, Total Maximum Daily Load, Water Quality Implementation Plan</i>, March 2007, Ecology Publication No. 06-10-066. https://fortress.wa.gov/ecy/publications/publications/0610066.pdf</p>
Location of Original 303(d) Listings	WA-08-9070 & 49ITVC
Area Where TMDL Requirements Apply	Cottage Lake and tributaries to Cottage Lake
Parameter	Total Phosphorus
EPA Approval Date	September 2004
MS4 Permittee	Phase I: King County

KING COUNTY

Action Required

King County shall apply phosphorus control treatment requirements to new and redevelopment projects, as applicable, throughout the Cottage Lake watershed, including all tributaries to Cottage Lake. King County's Department of Permitting and Environmental Review (DPER) shall not rely on the quarter mile/15 percent distance downstream clause in King County's Surface Water Design Manual.

Name of TMDL	WRIA 8 - Issaquah Creek Basin Water Cleanup Plan for Fecal Coliform Bacteria
EPA Approved Document(s) for TMDL	<i>Issaquah Creek Basin Water Cleanup Plan for Fecal Coliform Bacteria: Total Maximum Daily Load Submittal Report</i> , June 2004, Ecology Publication No. 04-10-055. https://fortress.wa.gov/ecy/publications/documents/0410055.pdf
Location of Original 303(d) Listings	Issaquah Creek, TF310B (WA-08-1110) North Fork Issaquah Creek, CZ80NC (WA-08-1110) Tibbetts Creek, MB51QQ, EA48LQ (WA-08-1115)
Area Where TMDL Requirements Apply	These requirements apply to areas served by MS4s within the TMDL coverage area.
Parameter(s)	Fecal Coliform Bacteria
EPA Approval Date	October 1, 2004
MS4 Permittee:	Phase I Permit: King County Phase II Permit: City of Issaquah, WAR04-5518

CITY OF ISSAQUAH

Action Required

- The City of Issaquah shall screen for bacteria sources when conducting IDDE related field screening under S5.C.5 of the Western Washington Phase II Permit, in any MS4 sub-basins which discharge to surface waters in the TMDL area. Implement associated schedules and activities in S5.C.5 in response to any illicit discharges found. Install and maintain pet waste education and collection stations at municipal parks and other Permittee owned and operated lands adjacent to streams. Focus on locations where people commonly walk their dogs.

KING COUNTY

Action Required

- Install and maintain animal waste education and/or collection stations at municipal parks and other Permittee owned and operated lands reasonably expected to have substantial domestic animal (dog and horse) use and the potential for pollution of stormwater.
- Designate previously unscreened areas discharging via MS4 to the TMDL area as high priority areas for illicit discharge detection and elimination. Complete IDDE field screening for bacteria sources in these areas, including rural MS4 sub-basins, by January 1, 2023, and implement the schedules and activities identified in S5.C.9 of the Phase I Permit for response to any illicit discharges found.

Name of TMDL	WRIA 8 - Little Bear Creek Fecal Coliform Water Quality Improvement Project
Document(s) for TMDL	<i>Little Bear Creek Fecal Coliform Total Maximum Daily Load (Water Cleanup Plan)</i> , May 2005, Ecology Publication No. 05-10-034. https://fortress.wa.gov/ecy/publications/publications/0510034.pdf
Location of Original 303(d) Listings	Little Bear Creek, UT96KR (WA-08-1085).
Area Where TMDL Requirements Apply	These requirements apply to areas served by MS4s within the TMDL coverage area.
Parameter(s)	Fecal coliform bacteria
EPA Approval Date	July 1, 2005
MS4 Permittee:	Phase I Permit: Snohomish County Phase II Permit: City of Woodinville, WAR04-5545

CITY OF WOODINVILLE

Action Required

- The City of Woodinville shall screen for bacteria sources when conducting IDDE related field screening under S5.C.5 of the Western Washington Phase II Permit, in any MS4 sub-basins which discharge to surface waters in the TMDL area. Implement associated schedules and activities in S5.C.5 in response to any illicit discharges found.
- Confirm that pet waste collection stations are installed and maintained in all public lands/parks adjacent to Little Bear Creek.

SNOHOMISH COUNTY

Action Required

- When conducting IDDE-related field screening under S5.C.9 of the Phase I Permit, Snohomish County shall screen for bacteria sources in any screened MS4 sub-basins which discharge to surface waters in the TMDL area. Implement the schedules and activities identified in S5.C.9 of the Phase I Permit for response to any illicit discharges found.

- Inspect commercial animal handling areas and commercial composting facilities to ensure implementation of source control BMPs for bacteria. *Commercial animal handling areas* are associated with Standard Industrial Code (SIC) 074 and 075 and include veterinary and pet care/boarding services, animal slaughtering, and support activities for animal production. Facilities where the degradation and transformation of organic solid waste takes place under controlled conditions designed to promote aerobic decomposition are considered *composting facilities* (definition in accordance with Chapter 173-350 WAC). Permittees shall continue to implement an ongoing inspection program to re-inspect facilities with bacteria source control problems every three years.
- Conduct public education and outreach activities to increase awareness of bacterial pollution problems and promote proper pet waste management behavior.
- Install and maintain animal waste collection and/or education stations at municipal parks and other Permittee owned and operated lands reasonably expected to have substantial domestic animal (dog and horse) use and the potential for pollution of stormwater.

Name of TMDL	WRIA 10 - Puyallup Watershed Water Quality Improvement Project
Document(s) for TMDL	<i>Puyallup River Watershed Fecal Coliform Total Maximum Daily Load – Water Quality Improvement Report and Implementation Plan</i> , June 2011, Ecology Publication No. 11-10-040. https://fortress.wa.gov/ecy/publications/publications/1110040.pdf
Location of Original 303(d) Listings	Puyallup River 16712, 7498, White River 16711, 16708, 16709, Clear Creek 7501, Swan Creek 7514, Boise Creek 16706
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittees' municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform
EPA Approval Date	September 2011
MS4 Permittee	Phase I Permit: King County, Pierce County Phase II Permit: Auburn, Edgewood, Enumclaw, Puyallup, Sumner

CITY OF AUBURN

Action Required

- Designate areas discharging via MS4 to the TMDL area as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these sub-basins by July 31, 2024, and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit discharges found. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology.
- Install and maintain pet waste education and collection stations at municipal parks and other Permittee owned and operated lands adjacent to streams. Focus on locations where people commonly walk their dogs.

CITY OF EDGEWOOD

Action Required

- Designate areas discharging via the MS4 to Jovita Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins by July 31, 2024, and implement the schedules and activities identified in S5.C.5 of the

Western Washington Phase II Permit in response to any illicit discharges found. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology.

CITY OF ENUMCLAW

Action Required

- Designate areas discharging via the MS4 to:
 - Boise Creek from creek mile 1.7 to 1.0.
 - The flume and laterals approximately 1 mile north of the confluence with the mainstem, north of SE 456th Street, between Highway 410 to the west and Watson Street N. to the east.

These locations are high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins by July 31, 2024, and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit discharges found. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology.

- Enumclaw shall inspect commercial animal handling areas and commercial composting facilities to ensure implementation of source control BMPs for bacteria. Commercial animal handling areas are associated with Standard Industrial Code (SIC) 074 and 075 and include veterinary and pet care/boarding services, animal slaughtering, and support activities for animal production. Facilities where the degradation and transformation of organic solid waste takes place under controlled conditions designed to promote aerobic decomposition are considered composting facilities (definition in accordance with Chapter 173-350 WAC). Implement an ongoing inspection program to re-inspect facilities or areas with bacteria source control problems at least every three years.
- Conduct public education and outreach activities to increase awareness of bacterial pollution problems and promote proper pet waste management behavior.
- Install and maintain animal waste collection and/or education stations at municipal parks and other Permittee owned and operated lands reasonably expected to have substantial domestic animal (dog and horse) use and the potential for pollution of stormwater.

KING COUNTY

Action Required

- When conducting IDDE-related field screening under S5.C.9 of the Phase I Permit, King County shall screen for bacteria sources in any MS4 sub-basins which discharge to surface waters in the TMDL area. Implement the schedules and activities identified in S5.C.9 of the Phase I Permit for response to any illicit discharges found.
- King County shall inspect commercial animal handling areas and commercial composting facilities to ensure implementation of source control BMPs for bacteria. Commercial animal handling areas are

associated with Standard Industrial Code (SIC) 074 and 075 and include veterinary and pet care/boarding services, animal slaughtering, and support activities for animal production. Facilities where the degradation and transformation of organic solid waste takes place under controlled conditions designed to promote aerobic decomposition are considered composting facilities (definition in accordance with Chapter 173-350 WAC). Implement an ongoing inspection program to re-inspect facilities or areas with bacteria source control problems at least every three years.

PIERCE COUNTY

Action Required

- Designate areas discharging via the MS4 to Swan Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins by July 31, 2024, and implement the schedules and activities identified in S5.C.9 of the Phase I Permit, in response to any illicit discharges found. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology.
- Designate areas discharging via the MS4 to Salmon Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins by July 31, 2024, and implement the schedules and activities identified in S5.C.9 of the Phase I Permit in response to any illicit discharges found. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology.
- Designate areas discharging via the MS4 to Alderton Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins by the July 31, 2024, and implement the schedules and activities identified in S5.C.9 of the Phase I Permit in response to any illicit discharges found. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology.

CITY OF PUYALLUP

Action Required

- Designate areas discharging via the MS4 to Deer Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins July 31, 2024, and implement the schedules and activities identified in S5.C.5 of the Phase II Permit in response to any illicit discharges found. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology.
- Designate areas discharging via the MS4 to Fennel Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins July 31, 2024, and implement the schedules and activities identified in S5.C.5 of the Phase II Permit in response to any illicit discharges found. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology.
- Designate areas discharging via MS4 to Deer Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-

basins by July 31, 2024, and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit discharges found. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology.

CITY OF SUMNER

Action Required

- Designate areas discharging via MS4 to Salmon Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins by July 31, 2024, and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit discharges found. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology.

Name of TMDL	WRIA 10 - Clarks Creek Fecal Coliform TMDL
Document(s) for TMDL	<p><i>Clarks Creek Watershed Fecal Coliform Bacteria Total Maximum Daily Load (Water Quality Improvement Report)</i>, May 2008, Ecology Publication No. 07-10-110. https://fortress.wa.gov/ecy/publications/documents/0710110.pdf</p> <p><i>Clarks Creek Watershed Fecal Coliform Bacteria Total Maximum Daily Load (Water Quality Implementation Plan)</i>, December 2009, Ecology Publication No. 09-10-081. https://test-fortress.wa.gov/ecy/publications/documents/0910081.pdf</p>
Location of Original 303(d) Listings	Clarks Creek 7497, 7501, Meeker Creek 7508, 7507
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittees' municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform
EPA Approval Date	June 4, 2008
MS4 Permittee	Phase II Permit: Puyallup

CITY OF PUYALLUP

Action Required

The City of Puyallup shall designate areas discharging via MS4 to Meeker Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these MS4 sub-basins by July 31, 2024, and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit discharges found. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology.

Name of TMDL	WRIA 10 - Clarks Creek Dissolved Oxygen and Sediment Total Maximum Daily Load
Document(s) for TMDL	Clarks Creek Dissolved Oxygen and Sediment Total Maximum Daily Load – Water Quality Improvement Report and Implementation Plan, December 2014, Ecology Publication No. 14-10-030. https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Total-Maximum-Daily-Load-process/Directory-of-improvement-projects/Clarks-Creek
Location of Original 303(d) Listings	Clarks Creek 35407 47590 47591 47592 Meeker Creek 7510 47578 47579 Rody Creek 47593 Silver Creek
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittees' municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Dissolved Oxygen and Sediment
EPA Approval Date	May 27, 2015
MS4 Permittee	Phase I Permit: Pierce County Phase II Permit: Puyallup

PIERCE COUNTY

Action Required

1. The Permittee shall operate, inspect and maintain existing¹ water quality improvement projects (WQIPs) and construct, operate, inspect, and maintain future WQIPs that achieve a combined annual average sediment reduction of 38.8 tons per year by December 31, 2021. This amount of annual sediment reduction represents 29 percent attainment of the 20-year Sediment WLA in the TMDL. The Permittee shall apply crediting methodologies described in the Restoration Plan² (hereafter, the Plan) or update of this Plan to determine stormwater treatment facility/BMP sediment removal rates.
2. The Permittee shall operate, inspect, and maintain existing WQIPs and construct, operate, inspect, and maintain future WQIPs that altogether treat or remove 13.7 MG of stormwater per year based

¹ Existing WQIPs are stormwater treatment facilities/BMPs constructed and operational after October 21, 2003. These include treatment facilities/BMPs implemented through retrofit or redevelopment.

² Refers to the *Pierce County Surface Water Management Clarks Creek Restoration Plan*, dated March 2, 2017, by Brown and Caldwell.

on the October 21, 2003 storm event, by December 31, 2021. This represents 46 percent attainment of the 20-year Dissolved Oxygen Deficit (DOD) WLA in the TMDL. The Permittee shall apply crediting methodologies described in the Plan or update of this Plan to determine volumes treated or removed by each WQIP.

3. The Permittee shall develop and submit a reporting ledger for the County Pollutant Load Reduction crediting system by March 31, 2020. This reporting ledger shall quantify annual sediment reduction (tons) credits and stormwater volume treated or reduced (MG) credits awarded to all operational WQIPs during the first three years of implementation of the Plan (i.e., 2017 – 2019). This ledger serves as the database and reporting instrument to track each year's credits and apply them toward the assigned numeric WLAs. Past retrofit or redevelopment projects constructed since October 21, 2003, may receive sediment reduction (tons) or stormwater volume treated or reduced (MG) credits for each year the project was inspected, maintained, and deemed operational. All WQIPs must be inspected, maintained, and deemed operational to receive annual sediment reduction and/or volume treated/reduced credits.
4. The Permittee shall submit an update of the Plan that includes the WQIPs proposed for the January 1, 2022 - July 31, 2024 reporting period, the sediment reduction and/or volume treated/reduced credit estimated for each WQIP proposed, as well as the crediting methodologies for crediting facility sediment removal and volumes treated or removed. This updated Plan shall be submitted to Ecology by April 1, 2021, for review and approval. Ecology reserves the right to require changes to the updated Plan. If Ecology takes longer than 90 days to provide an approval, the start of implementation of the updated Plan will be automatically extended by the number of days Ecology exceeds 90 days.
5. The Permittee shall submit an update of the Plan that includes WQIPs proposed for the five-year reporting period beginning August 1, 2024, the sediment reduction and/or volume treated/reduced credit estimated for each WQIP proposed, as well as the crediting methodologies for crediting facility sediment removal and volumes treated or removed. This updated Plan must be submitted to Ecology by November 1, 2023. Ecology reserves the right to require changes to the updated Plan. If Ecology takes longer than 90 days to provide an approval, the start of implementation of the updated Plan will be automatically extended by the number of days Ecology exceeds 90 days.
6. The Permittee shall submit a reporting ledger that quantifies annual sediment reduction (tons) credits and stormwater volume treated or reduced (MG) credits awarded to all operational WQIPs during the first six years of Plan implementation (i.e., 2017-2022) by March 31, 2023. This ledger serves as the database and reporting instrument to track each year's credits and apply them toward the assigned numeric WLAs. Past retrofit or redevelopment projects constructed since October 21, 2003, may receive sediment reduction (tons) or stormwater volume treated/reduced (MG) credits for each year the project was inspected, maintained and deemed operational. All WQIPs must be inspected, maintained and deemed operational to receive annual sediment reduction and/or volume treated/reduced credits.
7. Facilities in need of a maintenance action(s) impeding facility function cannot receive sediment reduction or stormwater volume treated credit during the period in which facility function is

impeded. A crediting exception can be made for stormwater treatment facilities monitored to determine actual removal or treatment rates in accordance with methods and procedures in an Ecology-approved QAPP and an individual facility operation and maintenance plan. Facilities/BMPs that exceed maintenance standards must perform required maintenance in accordance with schedules under S5.C.10.a.

8. **Street Sweeping Program:** The Permittee may draft a QAPP that outlines information gathered to calibrate their regenerative air street sweeping program's annual calculation of sediment reduction credits. This shall include a sampling program that measures the particle size distribution, organic carbon fraction and dry mass weight of the recovered material found in the hopper of the regenerative air vacuum sweeper. If the Permittee intends to credit its street sweeping program, the Permittee shall submit this draft QAPP to Ecology for review and approval, no later than July 1, 2020. The Permittee can only include sediment load reduction credit for its street sweeping program under an Ecology-approved QAPP.
9. **Public Education and Outreach:** The Permittee shall conduct public education and outreach activities that increase awareness among residents of the sources of polluted runoff affecting Clarks Creek and its tributaries.

CITY OF PUYALLUP

Action Required

1. The Permittee shall operate, inspect and maintain existing³ water quality improvement projects (WQIPs) that achieve a combined average annual sediment reduction of 51.0 tons per year by December 31, 2021. This represents 31 percent of the 20-year Sediment WLA in the TMDL implementation target⁴. The Permittee shall apply crediting methodologies described in the Retrofit Plan⁵ (hereafter, the Plan) or update of this Plan to determine stormwater treatment facility/BMP sediment removal rates.
2. The Permittee shall operate, inspect and maintain existing WQIPs and construct, operate, inspect, and maintain future WQIPs that altogether remove or treat 21.4 MG of stormwater per year based on the October 21, 2003 storm event by December 31, 2021. This represents 93 percent of the 20-year Dissolved Oxygen Deficit (DOD) WLA in the TMDL. The Permittee shall apply crediting methodologies described in the Plan or update of this Plan to determine volumes treated or removed by each WQIP.

³ Existing WQIPs are stormwater treatment facilities/BMPs constructed and operational after October 21, 2003. These include treatment facilities/BMPs implemented through retrofit or redevelopment.

⁴ The City estimates the existing 15th Street Diversion project reduces sediment loading to Clarks Creek by 49 tons per year (i.e., the City estimates this project accounts for 30 percent of the 20-year TMDL implementation target for sediment reduction).

⁵ Refers to the *City of Puyallup Draft Clarks Creek Retrofit Plan*, dated September 2017, by Brown and Caldwell.

3. The Permittee shall develop and submit a reporting ledger for the City's Pollutant Load Reduction crediting system by March 31, 2020. This reporting ledger shall quantify annual sediment reduction (tons) credits and stormwater volume treated or reduced (MG) credits awarded to all operational WQIPs during the first three years of implementation of the Plan (i.e., 2017 – 2019). This ledger serves as the database and reporting instrument to track each year's credits and apply them toward the assigned numeric WLAs. Past retrofit or redevelopment projects constructed since October 21, 2003, may receive sediment reduction (tons) or stormwater volume treated/reduced (MG) credits for each year the project was inspected, maintained, and deemed operational. All WQIPs must be inspected, maintained and deemed operational to receive annual sediment reduction and/or volume treated/reduced credits.
4. The Permittee shall submit an update of the Plan that includes the WQIPs proposed for the January 1, 2022 - July 31, 2024 reporting period, the sediment reduction and/or volume treated/reduced credit estimated for each WQIP proposed, as well as crediting methodologies for crediting facility sediment removal and volumes treated or removed. This updated Plan must be submitted to Ecology by April 1, 2021, for review and approval. Ecology reserves the right to require changes to the updated Plan. If Ecology takes longer than 90 days to provide an approval, the start of implementation of the updated Plan will be automatically extended by the number of days Ecology exceeds 90 days.
5. The Permittee shall submit an update of the Plan that includes the WQIPs proposed for the five-year reporting period beginning August 1, 2024, the sediment reduction and/or volume treated/reduced credit estimated for each WQIP proposed, as well as crediting methodologies for crediting facility sediment removal and volumes treated or removed. This updated Plan must be submitted to Ecology by November 1, 2023. Ecology reserves the right to require changes to the updated Plan. If Ecology takes longer than 90 days to provide an approval, the start of implementation of the updated Plan will be automatically extended by the number of days Ecology exceeds 90 days.
6. The Permittee shall submit a reporting ledger that quantifies annual sediment reduction (tons) credits and stormwater volume treated or reduced (MG) credits awarded to all operational projects during the first six years of Plan implementation (i.e., 2017-2022) by March 31, 2023. This ledger serves as the database and reporting instrument to track each year's credits and apply them toward the assigned numeric WLAs. Past retrofit or redevelopment projects constructed since October 21, 2003, may receive sediment reduction (tons) or stormwater volume treated/reduced (MG) credits for each year the project was inspected, maintained and deemed operational. All WQIPs must be inspected, maintained and deemed operational to receive annual sediment reduction and/or volume treated/reduced credits.
7. Facilities in need of a maintenance action(s) impeding facility function cannot receive sediment reduction or stormwater volume treated credit during the period in which facility function is impeded. A crediting exception can be made for stormwater treatment facilities monitored to determine actual removal or treatment rates in accordance with methods and procedures in an Ecology-approved QAPP and an individual facility operation and maintenance plan. Facilities/BMPs that exceed maintenance standards must perform required maintenance in accordance with schedules under S5.C.7.a.

8. **Street Sweeping Program:** The Permittee may draft a QAPP that outlines information gathered to calibrate their regenerative air street sweeping program's annual calculation of sediment reduction credits. This shall include a sampling program that measures the particle size distribution, organic carbon fraction, and dry mass weight of the recovered material found in the hopper of the regenerative air vacuum sweeper. If the Permittee intends to credit its street sweeping program, the Permittee shall submit this draft QAPP to Ecology for review and approval, no later than July 1, 2020. The Permittee can only include sediment load reduction credit for its street sweeping program under an Ecology-approved QAPP.
9. **Public Education and Outreach:** The Permittee shall conduct public education and outreach activities that increase awareness among residents of the sources of polluted runoff affecting Clarks Creek and its tributaries.

Name of TMDL	WRIA 10 - South Prairie Creek Water Quality Improvement Project
Document(s) for TMDL	<p><i>South Prairie Creek Bacteria and Temperature Total Maximum Daily Load (Water Cleanup Plan): Submittal Report</i>, June 2003, Ecology Publication No. 03-10-055. https://fortress.wa.gov/ecy/publications/publications/0310055.pdf</p> <p><i>South Prairie Creek Bacteria and Temperature Total Maximum Daily Load (Water Cleanup Plan): Detailed Implementation Plan</i>, July 2006, Ecology Publication No. 06-10-018. https://fortress.wa.gov/ecy/publications/documents/0610018.pdf</p>
Location of Original 303(d) Listings	South Prairie Creek VC19MO (WA-10-1085), Wilkeson Creek NX07HW (WA-10-1087)
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittees' municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform
EPA Approval Date	August 6, 2003
MS4 Permittee	<p>Phase I Permit: Pierce County</p> <p>Phase II Permit: Buckley</p>

PIERCE COUNTY

Action Required

- Designate areas discharging via the MS4 to Tributary 1 upstream of SR162 as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these sub-basins by July 31, 2024, and implement the schedules and activities identified in S5.C.9 of the Phase I Permit in response to any illicit discharges found. Investigation must include activities for both the dry season (May through September) and the wet season (October through April). The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology.
- Designate areas discharging via the MS4 upstream of SR165 along Spiketon Road, Mundy Loss Road, and Spiketon Ditch Road as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these sub-basins by July 31, 2024, and implement the schedules and activities identified in S5.C.9 of the Phase I Permit, in response to any illicit discharges found. Investigation must include activities for both the dry season (May through

September) and the wet season (October through April). The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology.

CITY OF BUCKLEY

Action Required

- Designate areas discharging via the MS4 to Spiketon Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these sub-basins July 31, 2024, and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit, in response to any illicit discharges found. Investigation must include activities for both the dry season (May through September) and the wet season (October through April). The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology.

Name of TMDL	WRIA 11 - Nisqually River Basin Water Quality Improvement Project
EPA Approved Document(s) for TMDL	<p><i>Nisqually Watershed Bacteria and Dissolved Oxygen Total Maximum Daily Load (Water Cleanup Plan): Submittal Report, May 2005, Ecology Publication No. 05-10-040.</i> https://fortress.wa.gov/ecy/publications/documents/0503002.pdf</p> <p><i>Nisqually River Basin Fecal Coliform Bacteria and Dissolved Oxygen Total Maximum Daily Load: Water Quality Implementation Plan (WQIP), June 2007, Ecology Publication No. 07-10-016.</i> https://fortress.wa.gov/ecy/publications/documents/0710016.pdf</p>
Location of Original 303(d) Listings	Nisqually Reach 390KRD (WA-PS-0290), Nisqually River OE72JI (WA-11-1010), McAllister Creek LD26OX (WA-11-2000), Ohop Creek MW64EV (WA-11-1024), Red Salmon Creek NoID (WA-PS-0290)
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittees' municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform, Dissolved Oxygen
EPA Approval Date	August 5, 2005
MS4 Permittee	<p>Phase I Permit: Pierce County</p> <p>Phase II Permit: Thurston County</p>

PIERCE COUNTY AND THURSTON COUNTY

Action Required

- Designate areas discharging via the MS4 to Ohop Creek and Lynch Creek as high priority areas for illicit discharge detection and elimination. Complete IDDE screening for bacteria sources in 100% of these sub-basins by July 31, 2024, and implement the schedules and activities identified in S5.C.9 of the Phase I Permit in response to any illicit discharges found. Investigation must include activities for both the dry season (May through September) and the wet season (October through April). The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology.

THURSTON COUNTY

Action Required

- Annually implement the following best management practices for reducing fecal coliform bacteria in areas discharging to the Nisqually Reach via the MS4 in accordance with S5.C.2 and S5.C.7 of the Western Washington Phase II Permit:
 - Reach households in targeted watershed through mailings, door hangers etc. to increase awareness of the sources of bacteria pollution.
 - Adequately maintain vegetation around stormwater facilities, ditches, and ponds.

Name of TMDL	WRIA 13 - Henderson Inlet Watershed Fecal Coliform Bacteria Water Quality Improvement Project
Document(s) for TMDL	<p><i>Henderson Inlet Watershed Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Temperature Total Maximum Daily Load Study</i>, March 2006, Ecology Publication No. 06-03-012. https://fortress.wa.gov/ecy/publications/documents/0603012.pdf</p> <p><i>Henderson Inlet Watershed Fecal Coliform Bacteria, Dissolved Oxygen, and pH Total Maximum Daily Load: Water Quality Improvement Report Implementation Strategy</i>, October 2006, Ecology Publication No. 06-10-058. https://fortress.wa.gov/ecy/publications/documents/0610058.pdf</p> <p><i>Henderson Inlet Watershed Fecal Coliform Bacteria Total Maximum Daily Load: Water Quality Implementation Plan</i>, July 2008, Ecology Publication No. 08-10-040. https://fortress.wa.gov/ecy/publications/documents/0810040.pdf</p>
Location of Original 303(d) Listings	Henderson Inlet (WA-13-0010), Dobbs Creek (WA-13-1400), Sleepy Creek (WA-13-1700), Woodard Creek (WA-13-1600), Woodland Creek (WA-13-1500)
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittees municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform, Dissolved Oxygen, pH, Temperature
EPA Approval Date	January 8, 2007
MS4 Permittee	Phase II Permit: Lacey, Olympia, Thurston County

THURSTON COUNTY

Action Required

1. Annually implement the following best management practices in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.6 of the Western Washington Phase II Permit:
 - a. Require phosphorus control for new and redevelopment projects that discharge via the MS4 to Woodard Creek and meet the project thresholds in Appendix 1, Minimum Requirement #6: Runoff Treatment of the Western Washington Phase II Permit.

2. Annually implement the following best management practices for reducing fecal coliform in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.5 of the Western Washington Phase II Permit:
 - a. Enhance screening in Henderson Inlet in areas of concern. Investigation shall include stormwater ponds and on-site septic systems as potential fecal coliform sources, and sampling of wet-weather discharges (November through April).
3. Annually implement the following best management practices for reducing fecal coliform in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.2 of the Western Washington Phase II Permit.
 - a. Continue offering public education and outreach efforts for fecal coliform reduction such as brochures, signage, and pet waste stations to homeowner associations.
4. Annually produce a report that details all actions completed as part of Appendix 2 requirements.

CITY OF LACEY

Action Required

1. Annually implement the following best management practices in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C. 2 of the Western Washington Phase II Permit:
 - a. Continue the Private Stormwater Facilities Maintenance Program, providing commercial and residential stormwater facility/BMP owners educational resources for facility function and maintenance requirements.
 - b. Offer bacteria pollution reduction brochures, signage, and pet waste stations to homeowners associations.
 - c. Maintain pet waste bag dispenser units in city parks.
 - d. Install educational signage at City facilities/property.
 - e. Submit a summary of actions completed with each annual report.
2. Implement the Fecal Coliform Bacteria Wet Weather Sampling Program for the College Regional Stormwater Facility in accordance with the illicit discharge detection and elimination efforts and activities identified in S5.C.5 of the Western Washington Phase II Permit.
 - a. Continue to use the Fecal Coliform Wet Weather Sampling Plan. The sampling program shall establish a regularly scheduled sampling schedule (at least two times per year), during the wet season (November through April), specific sampling locations, sampling protocols, parameters, analytical methods, and timelines for implementation.
 - b. If sampling results indicate potential illicit discharges, conduct an investigation in accordance with S5.C.5 of the Western Washington Phase II Permit.
 - c. Submit a summary of sampling and investigations with each annual report.

3. Revise the City's coordinated plan with the City of Olympia to monitor and reduce fecal coliform bacteria discharges from the Fones/Taylor wetland treatment facilities by December 31, 2019, in accordance with S5.C.5 of the Western Washington Phase II Permit.
 - a. Submit a revised program plan to Ecology that includes a timeline for implementation, sampling frequencies, and identifies, at the minimum, who will be responsible for sampling, investigations, and enforcement by December 31, 2019.
 - b. If sampling results indicate potential illicit discharges, conduct an investigation in accordance with S5.C.5 of the Western Washington Phase II Permit.
 - c. Submit a summary of the coordinated efforts with sampling, investigation, and enforcement actions taken with the annual reports.
4. Annually implement the following best management practices in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.7 of the Western Washington Phase II Permit:
 - a. Continue re-vegetation and nuisance vegetation management along Woodland Creek and its tributaries. Submit a summary of actions completed with each annual report.

CITY OF OLYMPIA

Action Required

1. Annually implement the following BMPs in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.6 of the Western Washington Phase II Permit:
 - a. Require phosphorus control for new and redevelopment projects that discharge via MS4 to Woodard Creek and meet the project thresholds in Appendix 1, Minimum Requirement #6: Runoff Treatment of the Western Washington Phase II Permit.
2. Revise the City's coordinated plan with the City of Lacey to monitor and reduce fecal coliform bacteria discharges from the Fones/Taylor wetland treatment facilities by December 31, 2019 in accordance with S5.C.5 Illicit Discharge Detection and Elimination of the Western Washington Phase II Permit.
 - a. Submit a revised program plan to Ecology that includes a timeline for implementation, sampling frequencies, and identifies, at the minimum, who will be responsible for sampling, investigations, and enforcement by December 31, 2019.
 - b. If sampling results indicate potential illicit discharges, conduct an investigation in accordance with S5.C.5 of the Western Washington Phase II Permit.
 - c. Submit a summary of the coordinated efforts with sampling, investigation and enforcement actions taken with each annual report.

Name of TMDL	WRIA 13 - Deschutes River Watershed
Document(s) for TMDL	<p><i>Deschutes River, Percival Creek, and Budd Inlet Tributaries Temperature, Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Fine Sediment Total Maximum Daily Load Technical Report: Water Quality Study Findings.</i> Ecology Publication No. 12-03-008. https://fortress.wa.gov/ecy/publications/documents/1203008.pdf</p> <p><i>Deschutes River, Percival Creek, and Budd Inlet Tributaries Temperature, Fecal Coliform Bacteria, Dissolved Oxygen, pH, and Fine Sediment Total Maximum Daily Load: Water Quality Improvement and Implementation Plan.</i> Ecology Publication No. 15-10-012. https://fortress.wa.gov/ecy/publications/documents/1510012.pdf</p>
Location of Original 303(d) Listings	Deschutes River 6576 7590 48710 48711 48712 48713 48714 48715 48717 48718 9439 7588 7592 7593 7595 48720 48721 48724 48726. Huckleberry Creek 3757. Reichel Creek 48666. Tempo Lake Outlet 48696. Unnamed Creek (Trib to Deschutes River) 7591. Unnamed Spring (Trib to Deschutes River) 48923. Black Lake Ditch 48733 48734 48735. Percival Creek 42321 48249 48727 48729.
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittees municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Temperature
EPA Approval Date	Temperature approved: June 29, 2018
MS4 Permittee	Phase II Permit: Thurston County, Olympia, Lacey, Tumwater

CITY OF OLYMPIA

Actions Required

- Annually report on temperature reduction measures in the watershed.

CITY OF LACEY

Actions Required

- Annually report on temperature reduction measures in the watershed.

CITY OF TUMWATER

Actions Required

- Annually report on temperature reduction measures in the watershed.

THURSTON COUNTY

Actions Required

- Annually report on temperature reduction measures in the watershed.

Name of TMDL	WRIA 14 - Oakland Bay, Hammersley Inlet, and Selected Tributaries Fecal Coliform TMDL
Document(s) for TMDL	<i>Oakland Bay, Hammersley Inlet, and Selected Tributaries Fecal Coliform Bacteria Total Maximum Daily Load (Water Quality Improvement Report)</i> , June 2011, Ecology Publication No. 11-10-039. https://test-fortress.wa.gov/ecy/publications/SummaryPages/1110039.html
Location of Original 303(d) Listings	Campbell Creek 24239 7596 Uncle John Creek 40618 Malaney Creek 24237 Goldsborough Creek 6659 Shelton Creek 6660 Inner Shelton Harbor 6658 Oakland Bay 39857 39861 39862 39872 45159 45215 53164 Hammersley Inlet/mouth of Mill Creek 39800 Hammersley Inlet 39801 39803 39804 39810 45220 45915 53178
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittees' municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform
EPA Approval Date	August 18, 2011
MS4 Permittee	Phase II Permit: Shelton

CITY OF SHELTON

Actions Required

- Designate areas discharging via MS4 to Goldsborough Creek, Inner Shelton Harbor and Oakland Bay as high priority areas for illicit discharge detection and elimination and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit. Bacterial screening results shall be included in annual reporting submitted to Ecology.
- Conduct public education and outreach activities to increase awareness of bacterial pollution problems and promote proper pet waste management behavior.
- Install and maintain animal waste collection and/or education stations at municipal parks and other Permittee owned and operated lands reasonably expected to have substantial domestic animal (dog and horse) use and the potential for pollution of stormwater.

Name of TMDL	WRIA 15 - Sinclair and Dyes Inlets Fecal Coliform Bacteria Total Maximum Daily Load
Document(s) for TMDL	<i>Sinclair and Dyes Inlets Fecal Coliform Bacteria Total Maximum Daily Load (TMDL) Water Quality Implementation Plan</i> , In Draft, Ecology Publication No. 11-10-051. https://fortress.wa.gov/ecy/publications/publications/1110051.pdf
Location of Original 303(d) Listings	Dyes Inlet & Port Washington Narrows (WA-15-0020) Gorst Creek (WA-15-4000) Blackjack Creek (WA-15-4200) Annapolis Creek (WA-15-4400) Beaver Creek (WA-15-4900) Clear Creek (WA-15-5000) Barker Creek (WA-15-5100) Sinclair Inlet (WA-15-0040)
Area Where TMDL Requirements Apply	These requirements apply to areas served by MS4s listed below within the TMDL coverage area.
Parameter(s)	Fecal coliform bacteria
EPA Approval Date	July 5, 2012
MS4 Permittee	Phase II Permit: City of Bainbridge Island, WAR04-5503; City of Bremerton, WAR04-5507; City of Port Orchard, WAR04-5536; Kitsap County, WAR04-5546

CITY OF BAINBRIDGE ISLAND

Action Required

- Designate any previously unscreened areas discharging via the MS4 to the TMDL area as the highest priority for illicit discharge detection and elimination routine field screening. Screen for bacteria sources when conducting illicit discharge detection and elimination field screening activities in these areas. Implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit for response to any illicit discharges found.
- Install and maintain pet waste education and collection stations at Permittee owned and operated lands adjacent to stream and marine shorelines. Focus on locations where people commonly walk their dogs.

CITY OF BREMERTON

Action Required

- Designate any previously unscreened areas discharging via the MS4 to the TMDL area as the highest priority for illicit discharge detection and elimination routine field screening. Screen for bacteria sources when conducting illicit discharge detection and elimination field screening activities in these areas. Implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit for response to any illicit discharges found.
- Install and maintain pet waste education and collection stations at municipal parks and other Permittee owned and operated lands adjacent to stream and marine shorelines. Focus on locations where people commonly walk their dogs.

CITY OF PORT ORCHARD

Action Required

- Designate any previously unscreened areas discharging via the MS4 to the TMDL area as the highest priority for illicit discharge detection and elimination routine field screening. Screen for bacteria sources when conducting illicit discharge detection and elimination field screening activities in these areas. Implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit for response to any illicit discharges found.
- Install and maintain pet waste education and collection stations at municipal parks and other Permittee owned and operated lands adjacent to stream and marine shorelines. Focus on locations where people commonly walk their dogs.

KITSAP COUNTY

Action Required

- Designate any previously unscreened areas discharging via the MS4 to the TMDL area as the highest priority for illicit discharge detection and elimination routine field screening. Screen for bacteria sources when conducting illicit discharge detection and elimination field screening activities in these areas. Implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit for response to any illicit discharges found.
- Install and maintain pet waste education and collection stations at municipal parks and other Permittee owned and operated lands adjacent to stream and marine shorelines. Focus on locations where people commonly walk their dogs.

Name of TMDL	WRIA 22 - Grays Harbor/Chehalis Watershed Fecal Coliform Bacteria Total Maximum Daily Load
Document(s) for TMDL	<p><i>Grays Harbor/Chehalis Watershed Fecal Coliform Bacteria Total Maximum Daily Load Submittal Report</i>, December 2001, Ecology Publication No. 01-10-025. https://fortress.wa.gov/ecy/publications/documents/0110025.pdf</p> <p><i>Quality Assurance Project Plan: Grays Harbor Fecal Coliform Bacteria Monitoring to Characterize Water Quality in Urban Stormwater Drains</i>, October 2010, Ecology Publication No. 10-10-066. https://fortress.wa.gov/ecy/publications/documents/1010066.pdf</p>
Location of Original 303(d) Listings	Outer Grays Harbor (WA-22-0020), Inner Grays Harbor (WA-22-030), Inner Grays Harbor (WA-22-0030), Chehalis River (WA-22-4040)
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittees' municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform
EPA Approval Date	December 2002
MS4 Permittee	Phase II Permit: Aberdeen

CITY OF ABERDEEN

Actions Required

1. Implement the schedules and activities identified in S5.C.2 of the Western Washington Phase II Permit. Continue to implement the Public Education and Outreach and Involvement Plan (Plan). The Plan shall target the reduction of fecal coliform pollution by increasing public awareness, effecting behavior changes and shall include: goals, target audiences, messages, format, distribution, and evaluation methods.
 - a. The Plan shall include at least the following elements and be fully implemented prior to the expiration date of the Permit:
 - i. Target the residents of the three high priority water bodies identified under the 2019-2024 Permit.
 - ii. Reach households in targeted watersheds through mailings, door hangers, or similar outreach tools.
 - iii. Reach 4-6th grade students.

- b. Continue program which notifies residents, in a timely manner, when bacteria pollution that poses a public health concern (such as a wastewater overflow) reaches the MS4.
 - c. Conduct two public education surveys gauging 4-6th grade student knowledge of general stormwater knowledge, the sources of bacteria and preventing bacteria pollution. One survey should measure resident's knowledge of bacteria pollution before outreach and the other should measure knowledge and likelihood of action after outreach.
 - d. Continue to implement the City's stream team program and work cooperatively with Grays Harbor Stream Team.
 - e. Maintain pet waste bag dispenser units and explanatory signs in public areas with dog usage.
 - f. Maintain an inventory of sources that have potential for bacteria runoff such as manure-composting facilities, stables, kennels.
 - i. Continue to use the City's targeted manure management educational plan for such facility owners. Send one letter annually that outlines compliance requirements. Maintain a resource webpage on the City's website. Submit a summary of actions completed with each annual report.
2. Designate areas discharging to the MS4 urban drains identified in the TMDL, as the highest priority areas for illicit discharge detection and elimination routine field screening efforts and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit. Field screening and source tracing methodology (see S5.C.5.d) must be consistent with the *Quality Assurance Project Plan: Grays Harbor Fecal Coliform Bacteria Monitoring to Characterize Water Quality in Urban Stormwater Drains*, October 2010.
- a. Enforce the City's regulatory mechanism to control pet waste.
 - b. Designate areas discharging via MS4 to the following discharge points: 501-ABDN, 510-MST, and 514-MST as high priority areas for illicit discharge detection and elimination efforts.
 - i. Complete field screening and implement the schedules and priority area for illicit discharge detection and elimination field screening identified in S5.C.5 of the Western Washington Phase II Permit. Investigation must include activities for both the dry season (May through October) and the wet season (November through April).
 - ii. Conduct twice monthly wet weather sampling of the discharge points 501-ABDN, 510-MST, and 514-MST to determine if specific discharges from Aberdeen's MS4 exceed the water quality criteria for fecal coliform bacteria.
 - Data shall be collected for two wet seasons.
 - Data shall be collected in accordance with an Ecology-approved QAPP.
 - Samples must be analyzed using an Ecology accredited lab.
 - If sampling results indicate potential illicit discharges, conduct an investigation in accordance with S5.C.5 – *Illicit Discharge Detection and Elimination* of the Western Washington Phase II Permit.
 - Data shall be submitted to Ecology in an approved format with the annual reports.